

JTS®

IT-12M4 V2.0 / IT-12D Ver_2.1



59508-065-02

IT-12M4 IT-12D Ver_2.1

INTERPRETATION

User's Manual SYSTEM

Important Notice

- All the safety and instructions for operation and use of the equipment should be read carefully before the system is operated.
- Please keep this user manual for future reference.
- Please follow all the operation instructions.
- Cleaning: Make sure to turn off the power supply before cleaning. Use a dry soft cloth to clean the equipment.
- Don't leave the product in a place with high humidity and temperature.
- Do not use any accessory, which is not recommended by the manufacturer .
- Do not place the equipment on an unstable stand; Please use appropriate package or original package by the manufacturer before transport to avoid damage caused by strong shake during transporting.
- Adequate ventilation is good for the maintenance of the equipment.
- **Power supply AC 100-240V.**
- **Hot swapping is prohibited.**
- **Total 3 sets of IT-12D can be connected in one system. The cumulative cable length should not exceed 30 meters. For particular requirement, please contact the nearest JTS Service Centre for information.**
- For service, please contact the nearest JTS Service Centre. Do not take the equipment apart by unauthorized personnel.
- All JTS products are guaranteed for 1 year except for the cases as follows caused by personal reasons:
 - A : Damage or malfunction caused by personal factors such as dropping, striking and so on.
 - B : Damage or malfunction caused by improper handling of the operator.
 - C : Parts loss or damage by taking apart by a unauthorized personal.
- **Only use JTS tailor-made cables to connect the system.**
- Turn off the power supply and unplug the equipment from the power supply in case the equipment is not in use for a long time.
- Upon receipt of the product, please fill out the Warranty Card enclosed and post it to JTS Service Centre nearby in your region.



TO REDUCE THE RISK OF ELECTRIC SHOCK, DO NOT EXPOSE THIS EQUIPMENT TO RAIN OR MOISTURE.

CAUTION: To reduce the risk of electric shock, DO NOT open covers, no useable serviceable parts inside. Refer servicing to qualified service personnel only

This label may appear on the bottom of the unit due to space limitations.



The lightning flash with an arrowhead symbol, with an equilateral triangle, is intended to alert the user to the presence of uninsulated dangerous voltage within the products enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.



The exclamation mark within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

WARNING: To prevent fire or shock hazard, do not expose units to rain or moisture



Attention: Installation should be performed by qualified service personnel only in accordance with the National Electrical or applicable local codes.



Power Disconnect: Units with or without ON - OFF switches have power supplied to the unit whenever the power cord is inserted into the power source; however, the unit is operational only when the ON - OFF switch is in the ON position. The power cord is the main power disconnect for all units.

INDEX

| | |
|--|----|
| 1. System Introduction | 1 |
| 2. Product Introduction | 2 |
| 2-1 Language Distributor // IT-12M4 | 2 |
| 2-2 Interpreter Console // IT-12D | 4 |
| 2-3 Accessories | 7 |
| 3. System Installation & Connection | 8 |
| 3-1 General Description | 8 |
| 3-2 System Connection // Connection Cables | 9 |
| 3-3 Connection of Audio Cables | 10 |
| 3-4 System Mounting Instructions | 12 |
| 4. System Setup & Operation | 13 |
| 5. Technical Data | 15 |

Remark:

JTS Company reserves the right to modify any issue without notice in advance.

If any detailed information needed, please contact the local agent or JTS distributor in your region.

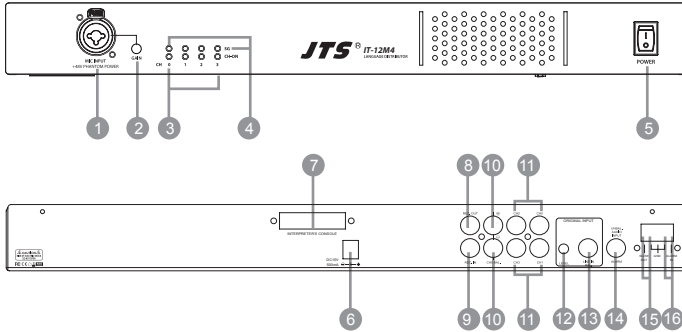
JTS is the registered trademark of JTS Professional Co., Ltd.

1. System Introduction

- The JTS IT-12 interpretation system consists of IT-12M4 and IT-12D.
- The IT-12M4 works as main unit to provide power, input and output interface, and control.
- The IT-12D is an interpreter console allowing two interpreters work together. Interpreters can choose either floor channel for original language for direct interpretation or relay interpretation available via the relay select key.
- For small venue crossing interpretation is available here.
- The whole system supports 3 interpreter consoles for simultaneous interpretation and delivers 4 languages to audiences.
- The product is a stand along system. It is compatible with any conference system. So no matter a new installation or an existing project needing expansion with interpretation IT-12 can easily meet the requirement.
- Together with JTS wireless system and any infrared system more audiences can participate in a conference.

2. Product Introduction

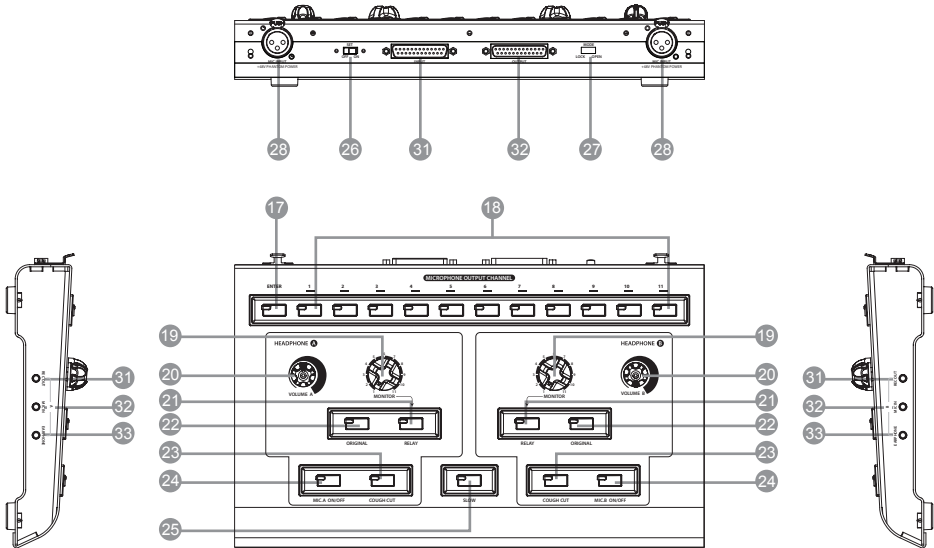
2-1 Language Distributor // IT-12M4



- 1 COMBO socket microphone input: This COMBO socket provides +48V Phantom power to a microphone with balanced XLR or unbalanced Φ 6.3 connector. The input signal will be mixed with the Original (CH0).
- 2 Gain: Adjust input sensitivity of the COMBO socket. The adjustable range is ± 10 dB.
- 3 Interpreter channel indicator: Light-On to indicate the correspondent channel is active. Flashing to indicate the correspondent channel is standby.
- 4 Signal level indicator: the brightness of this LED indicates the signal level of the correspondent channel.
- 5 Power Switch: Push the " | " on this switch will be turn system on, and push the " O " on this switch will turn system off.
- 6 DC power input: To connected the 12V /1A power adapter that included in package of IT-12M4 from JTS. Don't used other spec power adapter instead.
- 7 Interpreter console interface (D-sub 25pin socket):3 interpreter consoles can be connected in daisy chain (IT-12D).
- 8 Record IN connector (RCA): external signal from play back devices will be mixed with the Original (CH0) for recording.
- 9 Record output connector (RCA): Connect to recording equipment. The original signal (CH0) mixed with REC. IN will be recorded.
- 10 Original (CH0, floor channel) output (RCAx2/symmetrical output) : Original (CH0) balanced output with RCA connectors.

- ⑪ 4CH audio output interface: #0 to 3 correspond to the Original (CH 0) and 3 sets of Interpreter Consoles. Signals are for distribution to audiences via JTS wireless systems. Notice: any channel not in use will be assigned with CH0 as input.
- ⑫ Original (CH0) volume control: This potentiometer adjusts the Original (CH0) sensitivity. Adjustable range is $\pm 10\text{dB}$.
- ⑬ Original (CH0) input socket: This $\Phi 6.3\text{mm}$ balanced connector is connected to an output of a conference system or PA as the original signal of the interpretation system.
- ⑭ Alarm sound input: $\Phi 6.3\text{mm}$ jack / unbalanced input.
- ⑮ Slow output: When a Slow Key on the IT-12D is activated this Slow output will generate an 1 sec. pulse to request the lecturer to slow down.
- ⑯ Alarm control input: A short cut of Alarm Ctrl. and GND will activate alarm procedure. All channels will receive alarm signal, and indicator LED will change from Light-On to Flashing.

2-2 Interpreter Console // IT-12D



17 ENTER key : At Lock Mode to set the active channel of interpreter console. When 26 switch on Switch the ENTER indicator starts flashing. After push one of the selectable channels (from CH1 to CH11 with Light On) this active channel can be stored to this interpreter console by pushing the ENTER key. Then switch off the Switch 26 to end the procedure.

At OPEN Mode to clear the active channel of interpreter console. when interpreter want to close all channel of this interpreter console , then push the ENTER key to close active channel. In this time , all of channel indicator are off like power on initially state .

18 CH1~CH11 Channel Output Key:

- MODE switch at LOCK position: Under setting state, press it to select a selectable channel (indicator on) for interpretation output. Only 1 channel can be set in one Interpreter Console. The indicator of the activate channel is in green.
- MODE switch at OPEN position: All of channel indicator are off when power on initially. All channels are open to interpreter as long as it is not occupied by others. When

the channel is activated the Channel Output Key is in green. The indicator flashes in red which means this channel is in use by others.

Note: MIC. ON/OFF at OFF state, the activate channel will be released when this channel number on other interpreter console is selected.

- 19 Relay interpretation monitor (MONITOR): After pressing RELAY key, an interpreter can turn the monitor rotary knob to select an interpreted language he/she can understand to interpret.
- 20 Headphone volume control (VOLUME A, VOLUME B): To adjust the volume of the headphones.
- 21 Relay interpretation switch (RELAY): In case the interpreter doesn't understand the original language, they can press the key and switch Monitor to another interpreted language from other interpreter for further interpretation.
- 22 Floor Channel Switch (ORIGINAL): When the system start, the setting is by default, press it to listen to the original language (the speech from CH0).
- 23 Mute Key (COUGH CUT): In case the interpreter coughs. Keep pressing the key to mute the line, meanwhile the indicator is on. When released, the line returns to working status.
- 24 MIC ON/OFF button (MIC.A ON/OFF, MIC.B ON/OFF): Press it to turn the microphone on, the indicator will be on. Press it again to turn off the MIC. Only one microphone can be on at a time. MIC. A and MIC. B will override each other.
- 25 Reminder key (SLOW): In case the delegate speaks too fast for the interpreter to follow, press it to request the delegate to slow down.
- 26 MODE setting switch (OPEN / LOCK): The MODE switch needs be decided before power on. At the OPEN mode an interpreter can activate any channel in any time as long as it is not occupied. All channels are set off at the initial state, then an interpreter must select channel key which he wants. At the LOCK mode the interpreter can choose only one output channel which will not be taken by other users (setting procedure refer to step 27 and "System and Operation" chapter for more detail).
- 27 Setting switch (SET): When all Interpreter Console are connected, setting of a channel of each console is needed for first time installation at LOCK mode. First turn the Switch to "ON", the ENTER key will start flashing. According to above Step No.20 to select one channel for the console. Then turn the Switch to "OFF" to finish the channel setting. To starting the channel setting procedure just turn the setting switches (SET) from "OFF" to "ON". Finish the channel setting procedure by turn the setting Switch from "ON" to "OFF".
- 28 XLR microphone input: Each interpreter unit including 2 balanced XLR microphone

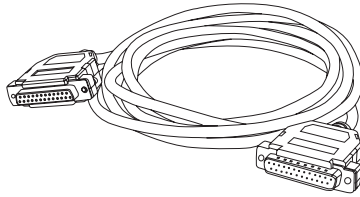
input sockets with +48V Phantom power. These balanced microphones will be mixed with MIC. A/B.

- ②9 Input interface (INPUT): to connect the first Interpreter Unit to the IT-12M4 and the second one to the Output interface of the first unit (25-pin socket).
- ③0 Output interface (OUTPUT): for connection with the next Interpreter Unit (25-pin plug).
- ③1 Recorder interface (REC OUT): Φ 3.5mm stereo, for connection with a recorder to record the interpretation. (Available on both left and right side of the Interpreter Console).
- ③2 Microphone input (MIC IN): Φ 3.5mm dummy stereo, for connection with microphone(Available on both left and right side of the Interpreter Console).
- ③3 Earphone output (EARPHONE): Φ 3.5mm stereo, for connection with interpreter headset (Available on both left and right side of the Interpreter Console).

2-3 Accessories

Accessories are standard parts for a complete system installation, general description are as follow:

- (1) IT-12-C3: 3 meter cable with D-sub 25-pin M/F on each end.
- Used to connect Interpreter Console (IT-12D) in daisy chain and to IT-12M.
 - Connecters: 1 Plug, 1 Socket.



- (2) HPM-12 : Multi media Headset(headphone with microphone)
- Earphone: ϕ 3.5mm stereo.
- One set bundled with IT-12D for monitoring and interpretation.
- Hi-Fi quality, ergonomic design for long time fatigueless wearing.
 - $33\Omega \times 2$, ϕ 3.5mm stereo jack x 2 (Green: Earphone jack; Orange: Mic. Jack)
- Microphone
- Unit: ϕ 6x5mm
 - Frequency Range: 30-16000Hz
 - Sensitivity: -58 ± 3 dB
 - Impedance: $\leq 2.2K\Omega$
 - Standard Operating Voltage: 3.0V



3. System Installation & Connection

3-1 General Description

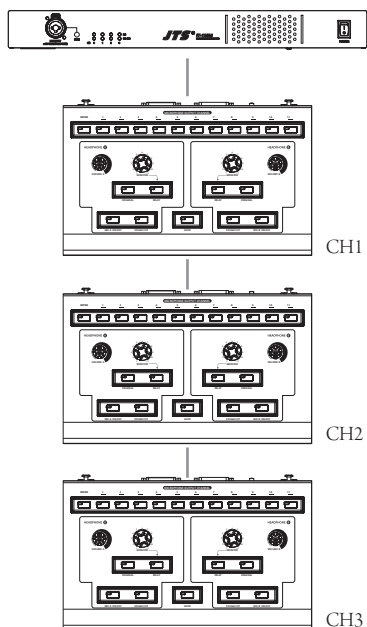
IT-12 Interpreter System has a compact dimension and is easy for installation. IT-12D interpreter consoles are connected in daisy chain and the first IT-12D is connected to the main unit IT-12M4.

A detailed description of IT-12 Interpreter System installation and connection will be given by diagrams and examples in this chapter.

3-2 System Connection // Connection Cables

All consoles are connected via D-Sub 25-pin cable. A 25-pin 3 meter cable (with a plug and a socket) is included in each IT-12D Interpreter Console to connect the interpreter unit to Main Unit IT-12M4 or to each other. On the rear panel of IT-12D there are two D-Sub connectors, the “INPUT” is a plug and the “OUTPUT” a socket. Connect the plug from the 25-pin cable to the Main unit IT-12M4 then the socket from the 25-pin cable to the plug “INPUT” on the first Interpreter Console. And then connect the plug of the second 25-pin cable to the socket “OUTPUT” of the first Interpreter Console and the socket is connected to the plug “INPUT” of the next Interpreter Console. Then all the interpreter units are connected in daisy chain. As many as 3 interpreter units can be connected for 4 languages (including floor channel) interpretation. Extension cables can be used between Interpreter Consoles and Main Unit IT-12M4 (IT-12-C3/C6/C12/C18).

It is strongly recommended to use JTS tailor-made cables to ensure the best performance.



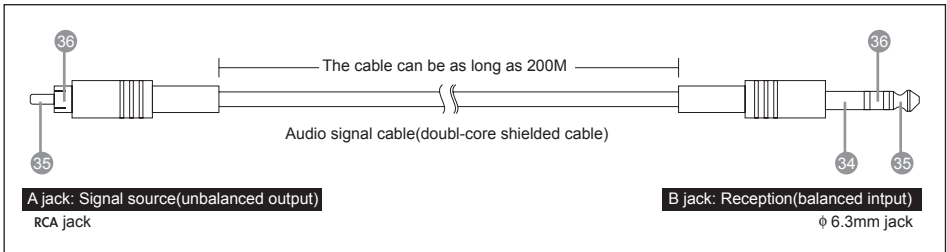
3-3 Connection of Audio Cables

Cable connection plays an important role in the long distance audio transmission. Improper connection will result in interference. For example:

(1) Connection for Unbalanced to Balanced transmission cable:

Practical example: after the audios from signal source of mono RCA output, they go through to the IT-12M4 balanced input "LINE IN" ($\phi 6.3\text{mm}$ jack) via unbalanced output.

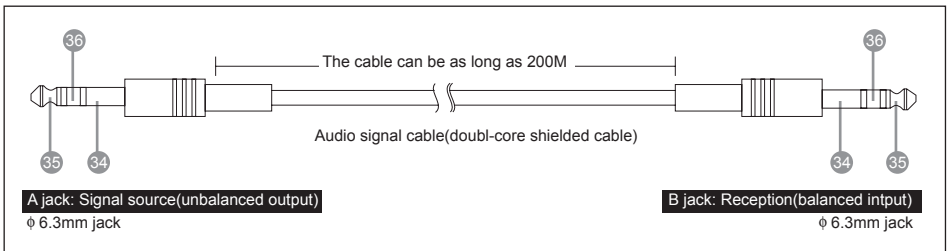
- 34 GND(SHIELD)
shielded net
- 35 BAL. + OR UNBAL.HI.
- 36 BAL. - OR UNBAL.LO.



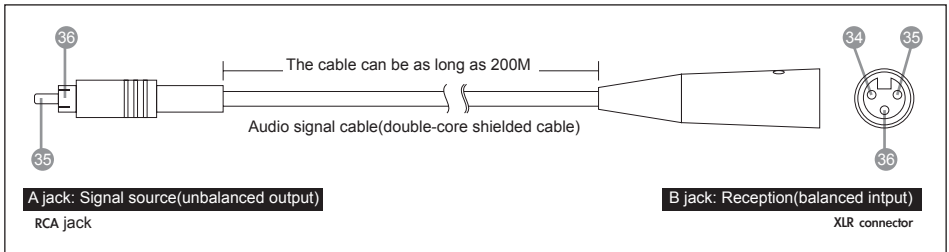
* Note: This connection is not applicable to Balanced to Unbalanced transmission. Otherwise, the signal source of balanced output may be damaged.

(2) Connection for Balanced to Balanced transmission cable:

Practical example: After the audios from wired and/or wireless microphones are mixed via the mixer, they go through to the IT-12M4 balanced input "LINE IN" ($\phi 6.3\text{mm}$ jack) via balanced output.



- (3) Connection for Unbalanced to Balanced XLR transmission cable:
Practical example: the recording output of IT-12M4 “REC. OUT” (unbalanced output) to PA system or media recording input XLR interface (balanced input).



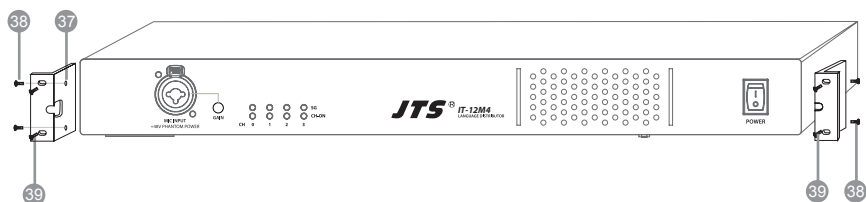
* Note: This connection is not applicable to Balanced to Unbalanced transmission.
Otherwise, the signal source of balanced output may be damaged.

3-4 System Mounting Instructions

IT-12M4 Main unit Installation

- (1) Dimension (LxWxH): 421 x 213 x 44mm
- (2) Colour: Silvery black
- (3) Weight: 2 Kg
- (4) "L" shape rack mount bracket for 1U 19-inch standard cabinet.
- (5) Mounting Instructions

A pair of rack mount brackets are equipped with the IT-12M4 **37**, unscrew the screws on both sides firstly **38**, then fasten the brackets with these screws and put the IT-12M4 in the rack, finally install the unit onto the rack with 4 screws **39**.



4. System Setup & Operation

4-1 General Description

This chapter provides a comprehensive and detailed description on how to setup and operate IT-12 Interpreter System Main Unit (IT-12M4) and Interpreter Console (IT-12D).

(1) OPEN Mode: Interpreter Console Output Channel Select (IT-12D)

Select the Console with one of the Channel Output key '1, 2, 3'; for example: If you want this unit to be NO. 1; just press "1". Then the indicator on the key will light on in green while the channel is not occupied. If the indicator on the key flashes in red that means the channel is occupied by other units. When the MIC. ON/OFF of the activated channel is at OFF state, the activate channel could be released when other interpreter console selects the same channel number.

(2) LOCK Mode: Interpreter Console Output Channel Select (IT-12D)

Interpreter Console must be assigned with one unique output channel before being used. The procedure is as:

- a. Make sure the connection is correct, and then turn on the IT-12M4.
- b. Turn the "SET" setting switch from "OFF" on the rear panel of the Interpreter Console to "ON", the indicators of "ENTER" on the unit starts flashing. The indicators of available channels will turn RED. Pay attention only one channel can be activated.
- c. Assign the Console with one of the Channel Output key "1,2,3", for example: If you want this unit to be NO 1, just press "1". Then the indicator on the key will change to Green light, press "ENTER" key to store, the indicator of "ENTER" will keep light on.
- d. Turn the "SET" setting switch to "OFF", the "ENTER" indicator will turn off, that means the output channel selecting procedure is completed;
- e. If cross interpretation is needed OPEN mode should be selected.
- f. Repeat the same procedure (Steps b~d) to assign all the Interpreter Consoles.

(3) To Cancel Selected Output Channel (only for LOCK mode)

- a. Turn the "SET" from "OFF" to "ON".
- b. Push the "ENTER" for 3 seconds. Then all Channel Output Indicators will turn off.
- c. Turn the "SET" from "ON" to "OFF". The Console will be of factory setting now.

(4) The Operation of IT-12D Interpreter Console:

The Interpreter Console is designed with digital technologies and used in conjunction with HPM-12 interpreter headset. Each Console allows two interpreters to work on it.

The operation procedures are as follows:

- a. At LOCK mode, when the output channel is selected an interpreter only need push the MIC ON/OFF key to activate the microphone or deactivate it.
- b. At OPEN mode, an interpreter can press any Output Channel key to deliver the correspondent language. The available channel will show a green indicator. A flashing red indicator means the channel is occupied.
- c. Put on the headset, adjust the microphone to an appropriate position and control the volume (Floor language is "ORIGINAL" as defaulted). Press "MIC. A/B ON/OFF" to start the interpretation.
- d. In case the interpreter doesn't understand the floor language. He/she can select a language familiar with from other interpreter for relay interpretation. First press "RELAY" key, the indicator will be on, and then switch the MONITOR to choose a familiar language for interpretation.
- e. In case the Interpreter wants to cough, keep pressing "COUGH CUT" key to cut off the language output, release it to continue the interpretation.
- f. When the speaker speaks too fast for the interpreter to follow, the interpreter can press "SLOW" key to remind the speaker to slow down. A pulse signal will come out as remind from the IT-12M4 to the speaker desk.
- g. Each Interpreter Console accommodates A/B two interpreters to work, the operation A/B interpreter is the same.

5. Technical Data

5-1 System environmental Conditions

Transport Temp.: -40°C~+70°C
Operational Temp.: 0°C~+45°C
Max. Relative humidity: <95%

5-2 Main Unit IT-12M4 Technical Data

Audio Input..... Ø6.3mm balanced, unbalanced
Level:0.775V
Combo XLR Level: 2mV
Audio Output..... Floor Output: RCA*2 Symmetrical, RCA*6
Output Freq-Response..... 10~16,000 Hz
T.H.D. <0.05%
SNR..... >75dBA
Crosstalk..... >70dB(1kHz)
Dynamic Range..... >85dB
Output Load..... >1kΩ
Simultaneous Interpretation..... 25 pin D-SUB
Power Supply..... AC 110~220V/DC 12V
System Consumption..... 12W
Dimension(m/m)..... 421.6mm(W) * 44mm(H) * 213.2mm(D)
Weight..... 2 Kg

Interpretation Unit (IT-12D) Technical Data

| | |
|-----------------------------|-------------------------------------|
| Item..... | Specification |
| Unit power..... | DC+12V |
| Unit power consumption..... | 100mA±10mA |
| MIC sensitivity..... | -45dB±2dB |
| XLR MIC sensitivity..... | -45dB±2dB |
| Earphone output level..... | 120mV±10mV at 33Ω load, volume MAX. |
| REC OUT output level..... | 140mV±10mV |
| Protocol..... | RS-485 |
| In/Out interface..... | D-Sub 25P plug and socket |
| Dimension (LxWxH)..... | 330*206*57mm |
| Color..... | Silvery-blue black |
| Weight..... | 2.5Kg |

